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Abstract

No abstract submitted.

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Presentation Discussion

John Day (Louisiana State University—Baton Rouge, LA)

Nancy Rabalais *(Louisiana State University—Baton Rouge, LA)* asked if John Day knew what the partitioning was of the freshwater outflow through the Atchafalaya Bay because her offshore data (which is limited) indicates that the nutrients (in Fourleague Bay) are central and west of study area due to the long shore current movement and they are entering the Gulf through the Atchafalaya Bay area.

John Day responded that the estimates of partitioning are from five to ten percent flow through the study area, and it is possible that the flow goes in the direction she indicated, but there is a lack of information to determine for certain.

Daniel Ray *(The McKnight Foundation—Minneapolis, MN)* asked if all the wetlands need to be located in the Gulf or if sufficient uptake would occur if the wetlands were located closer to the flood plain.

John Day responded that the solution to the problem is not just in the Delta, bust also for upstream, and that nitrate can be removed very rapidly.

Don Boesch *(University of Maryland— Cambridge, MD)* commented that some of what has been shown is the sink of nitrogen and some of it is conversion of organic nitrogen into ammonium. He then asked what the net permanent loss was through de-nitrification or burial of nitrogen, in Fourleague Bay as opposed to a marsh.

John Day replied that he has talked to some people regarding this topic and has found that usually among concentrations of nitrogen, ammonium, and TKN, nitrate is much higher; in excess of 50 percent. Someone has looked at their wetland systems and almost 90 percent goes to denitrification. It is possible that more than 50 percent is lost through denitrification in Fourleague Bay.

Len Bahr *(Louisiana Governor's Office - Baton Rouge, LA)* commented that if the losses in the Atchafalaya are approximately 30 percent, and the lower Mississippi losses are 70 percent, and one is constrained during the spring, and one has no seasonal constraints, a synoptic study of nutrient dynamics down both branches extending to the nearshore area would be useful. There should be more nutrient uptake calibrated for the different flows of sediment levels in the Atchafalaya.

John Day agreed, saying that the study was absolutely necessary before further work on the project can proceed.